

25X1

SECRET

65653

R 311500Z JUL 68  
FM NPIC WASHDC  
TO RUEOJFA/DIA (DIAXX-2)  
RUEOJFA/JCS (JRC)  
RUEFHQA/HQ USAF FOR AFNICAD & AFRDRP  
RUCSAAA/SAC (DIR)  
RUWMDDA/9 SRW (DCI)  
BT

31 Jul 68 15 44z

SECRET [REDACTED] CITE NPIC 4301.

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SUBJECT: EVALUATION OF GIANT SCALE MISSION S-237, FLOWN 17 JULY 1963.

1. QUALITY SUMMARY: THIS MISSION PROVIDES IMAGERY COMPARABLE TO THE LATEST GIANT SCALE MISSIONS. INTERPRETATION SUITABILITY IS GENERALLY FAIR AS MOST OF THE MISSION IS AFFECTED BY ATMOSPHERICS. IN CLOUD FREE AREAS, THE P.I. SUITABILITY IS CONSIDERED TO BE FAIR TO GOOD. GROUND RESOLUTIONS ARE EMPIRICAL ESTIMATES BASED ON EVALUATIONS OF SIMILAR SENSORS AND IMPLY A BAR AND A SPACE. A

## DISTRIBUTION

THE FOLLOWING RESOLUTION ESTIMATES WERE MADE ON THE ORIGINAL NEGATIVE FROM CLOUD FREE IMAGERY AT OR NEAR NADIR.

- LEFT TECHNICAL OBJECTIVE CAMERA
- RIGHT TECHNICAL OBJECTIVE CAMERA
- LEFT OPERATIONAL OBJECTIVE CAMERA
- RIGHT OPERATIONAL OBJECTIVE CAMERA

2. CLOUDS OBSCURE OR DEGRADE 45 PERCENT OF THE ENTIRE MISSION.

3. THE MATERIAL WAS PROCESSED [REDACTED], THE MISSION

EMPLOYES THE USUAL SENSORS. THE ONLY MATERIALS EVALUATED ARE THE ORIGINAL NEGATIVES FROM THE OPERATIONAL AND TECHNICAL OBJECTIVE CAMERAS. THE TERRAIN OBJECTIVE CAMERA MATERIAL WAS USED FOR THE AREAS OF 80 PERCENT CLOUD FREE PHOTOGRAPHY.

4. ANALYSIS OF THE TECHNICAL OBJECTIVE MATERIAL.

A. COMMENTS APPLICABLE TO BOTH CAMERAS:

(1) APPROXIMATELY 65 PERCENT OF THE PHOTOGRAPHY WAS ACQUIRED ABOVE 30 DEGREES OBLIQUITY.

(2) RANDOM MINUS DENSITY LINES PARALLEL TO THE MAJOR AXIS AND MINUS DENSITY LINES ASSOCIATED WITH THE PLATEN ARE PRESENT THROUGHOUT THE MISSION.

(3) TWO PLUS DENSITY STREAKS, PARALLEL TO THE MAJOR AXIS, ONE 2.0 INCHES FROM THE TITLED EDGE AND THE OTHER 2.0 INCHES FROM THE UNTITLED EDGE, ARE PRESENT INTERMITTENTLY THROUGHOUT THE MISSION.

(4) FOG CAUSED BY STATIC DISCHARGE CAN BE DETECTED ALONG BOTH FILM EDGES.

(5) MOST FRAMES CONTAIN BANDING.

(6) IMAGE SMEAR AND DOUBLE IMAGERY ARE DETECTABLE ON HIGH OBLIQUE FRAMES.

(7) THE DENSITY AND CONTRAST ARE ADEQUATE WHERE WEATHER IS NOT A FACTOR.

B. LEFT TECHNICAL OBJECTIVE (AL) S/N 64-21

(1) A V-SHAPED FILM TEAR IS PRESENT NEAR THE CENTER OF FRAME 1418 AND CONTINUES INTO FRAME 1419, HAVING APPROXIMATELY 8 INCHES LENGTH AND A 2 INCH WIDTH AT ITS BASE. FRAME 1419 CONTAINS VARIOUS PLUS DENSITY MARKS ASSOCIATED WITH THIS FILM TEAR.

(2) THE DATA BLOCK EDGE OF FRAME 0581 CONTAINS A DIAGONAL FILM TEAR APPROXIMATELY 3.5 INCHES LONG AT THE BEGINNING OF THE SECOND CAN OF FILM.

(3) THERE IS AN EMULSION DIG, APPROXIMATELY 0.2 INCH WIDE ALONG THE MINOR AXIS OF FRAME 099, LOCATED ONE INCH FROM THE NON-

1	FILE	25X1
2	CABLE SEC.	
3	PF&B/RD	25X1
4	SECUR.	
5	TSSG/TAD	
6	PSC/SC	
7	RRD	25X1
8	REPRO	
9	AID	
10	LEG	
11	PROD	
12	SCIEN	
13	WEST	
14	EAST	
15	L&S	
16	PGM	
17	IAS	
18	DIA-XX4	
19	SPAD	
20	DIA-AP	25X1
21	CMK	

ADVANCE CY  
SANITIZED  
WITH TEXT

SECRET

GROUP 1  
Excluded from auto  
downgrading and  
declassification  
25X1

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DATA BLOCK EDGE OF THE FRAME.

(4) A PAIR OF THREE INCH LONG FILM CREASES ARE PRESENT APPROXIMATELY 2.0 INCHES FROM BOTH EDGES OF THE FORMAT ON FRAMES 0064, 0067, AND 0068. HOWEVER, THEY CANNOT BE DETECTED AT THE SAME POSITION ON THE RESPECTIVE FRAMES.

(5) THE THIRD FRAME AFTER EACH CAMERA OFF/ON CONTAINS A PAIR OF MINUS DENSITY BANDS PARALLEL TO THE MINOR AXIS AND APPROXIMATELY ONE INCH APART. THEY ARE SLIGHTLY MORE SEVERE THAN THOSE NORMALLY DESIGNATED AS BANDING.

(6) A HEAT SPLICE IS PRESENT BETWEEN FRAMES 0753 AND 0754.

(7) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 0661/0662 AND 1052/1053.

(8) THERE IS A BIAS OF 37 BETWEEN THE EVENTS COUNTER AND THE TITLED FRAME NUMBER.

(9) THE LAST TITLED FRAME IS 1452.

C. RIGHT TECHNICAL OBJECTIVE CAMERA (AR) S/N 64-22.

(1) FRAMES 1-24 CONTAIN SEVERE HANDLING MARKS.

(2) THE DATA CHAMBERS OF FRAMES 532, 604 AND 605 ARE OVERLAPPED BY FRAMES 531, 603 AND 604 RESPECTIVELY. THE DATA CHAMBER FOR FRAME 1161, FIRST FRAME OF CAN 3, IS MISSING DUE TO SPLICING.

(3) A HEAT SPLICE IS PRESENT BETWEEN FRAMES 692/693.

(4) CAMERA OFF/ONS OCCURRED BETWEEN FRAMES 708/709 AND 1081/1082.

(5) THERE IS A BIAS OF 38 BETWEEN THE EVENTS COUNTER AND THE TITLED FRAME NUMBER.

(6) THE LAST TITLED FRAME IS 1444.

5. ANALYSIS OF THE OPERATIONAL OBJECTIVE CAMERA MATERIAL.

A. COMMENTS APPLICABLE TO BOTH CAMERAS.

(1) THE DENSITY AND CONTRAST IS MEDIUM AND APPEARS TO BE SATISFACTORY.

(2) THE TIMING DOTS ARE IMAGED INSIDE THE FORMAT AND BEGIN 0.5 INCH AFTER START OF SCAN AND EXTEND 0.3 INCH BEYOND THE END OF SCAN.

(3) THE FIRST 0.5 INCH OF IMAGERY IS DEGRADED AFTER START OF SCAN. THE FIRST 0.2 INCH IS THE MOST SEVERE.

(4) RAIL SCRATCHES ARE PRESENT ON BOTH SIDES OF THE FRAME.

(5) ON THE LAST 20 PERCENT OF THE MISSION, THE TITLED SIDE EDGE OF THE FRAME IS ABRADED CAUSING A "RIPPLE" AFFECT. IT BECOMES SEVERE RANDOMLY THROUGHOUT THE MISSION.

(6) MINOR TITLE TRANSFER IS PRESENT INTERMITTENTLY THROUGHOUT THE MISSION.

(7) MINOR EMULSION SCRATCHES CAN BE DETECTED ON SEVERAL FRAMES DURING THE MISSION.

B. LEFT OPERATIONAL OBJECTIVE CAMERA (C/L) S/N 40-05

(1) A MINUS DENSITY STREAK, PARALLEL TO THE MAJOR AXIS OF THE FILM, IS PRESENT THROUGHOUT THE MISSION. IT IS LOCATED 0.02 INCH FROM THE NON-TITLED EDGE OF THE FORMAT AND IS APPROXIMATELY 3.05 INCH WIDE. THIS STREAK HAS BEEN PRESENT ON PREVIOUS MISSIONS UTILIZING THIS CAMERA (S/N 40-45).

(2) A 1.0 INCH LONG PLUS DENSITY BAND IS LOCATED AT THE CENTER OF FORMAT AND EXTENDS 0.25 INCH INTO THE FORMAT FROM THE START OF SCAN. IT APPEARS TO BE A SHADOW FROM THE DATA CHAMBER.

(3) THE TITLED SIDE OF THE FORMAT HAS A RAGGED APPEARANCE THROUGHOUT THE MISSION.

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(4) THE SECOND/MINUTE MARKS ON THE RIGHT HAND SIDE OF THE CLOCK ARE OBSCURED THROUGHOUT THE ENTIRE MISSION.

(5) A SMALL PORTION OF THE RIGHT HAND SIDE OF THE DATA CHAMBER ENTERS THE FORMAT THROUGHOUT THE MISSION.

(6) SPLICES ARE PRESENT BETWEEN FRAMES 340/341, 360/361, 680/681, AND 1020/1021.

(7) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 418/419 AND 847/848.

(3) THE LAST TITLED FRAME IS 1112. THERE IS NO BIAS BETWEEN THE TITLED FRAME NUMBER AND THE EVENTS FRAME COUNTER.

C. RIGHT OPERATIONAL OBJECTIVE CAMERA (C/R) S/N 40-16.

(1) MINUS DENSITY STREAKS, PARALLEL TO THE MAJOR AXIS, ARE PRESENT INTERMITTENTLY THROUGHOUT THE MISSION.

(2) STRETCH MARKS ARE PRESENT THROUGHOUT THE MISSION.

(3) THE DATA CHAMBER IS READABLE BUT SLIGHTLY SKEWED.

(4) AN ULTRASONIC SPLICE IS PRESENT ON FRAME 238. MYLAR SPLICES ARE LOCATED BETWEEN FRAMES 340/341, 492/493, 680/681 AND 1020/1021.

(5) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 424/425 AND 869/870.

(6) THE LAST TITLED FRAME IS 1144. THERE IS NO BIAS BETWEEN THE TITLED FRAME NUMBER AND THE EVENTS COUNTER.

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END OF MESSAGE